Standards of Public Land Health
Evaluation of 65074 SAND CAMP RANCH Allotment
[7/27/2005]

The Roswell Field Office conducted rangeland health assessments at five (5) study sites within Sand Camp Ranch, allotment #65074. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within each study site location. Existing monitoring data was incorporated into and in support of these field assessments. A summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65074-ANCHOR-D137 (*)	X			X			N/A		
65074-EAST NAIL-D133 (*)	X			X			N/A		
65074-HORSE-D135 (*)	X			X			N/A		
65074-PIPELINE-D136 (*)	X			X	*		N/A		
65074-WEST NAIL-D134 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Sand Camp Ranch, allotment #65074. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on five trend plot locations were utilized to assess rangeland health of public land within this allotment. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 years.

East Nail, West Nail and Pipeline Pastures are CP-2 Deep Sand ecological sites. Anchor and Horse Pastures are SD-3 Shallow Sandy and Shallow ecological sites respectively. East Nail is a Faskin soil consisting of deep, well drained formed in aeolian and alluvial sediments on uplands. The elevation is 3,500 ft/1,060 m to 4,100 ft/1,242 m on 0-3 percent slopes. The acreage is 2,436 or 986 hectares. Most of the indicators assessed rated None to Slight and Slight to Moderate. No

livestock were observed at the time of evaluation. Wind-scoured blowouts/depositional areas, annual production and physical crusts deviated moderately from the ESD and long-term average. Blowouts were occasionally present but are revegetating with native grasses, most notably threeawn (Aristida spp.). Annual production is currently estimated at 600 lbs/ac or kg/ha which is approximately 60% of potential. Physical crusts are evident throughout with breaks in continuity but are a minor component of interspaces. Grasses observed on site are little bluestem (Schizachyrium scoparium), dropseed (Sporobolus spp.) and threeawn.

West Nail is a Faskin-Roswell complex occurring on severely wind-blown uplands in the eastern part of the survey area and west of the High Plains. Slope is 0 to 15 percent between 3,500 ft/1,060 m and 4,100 ft/1,242 m in elevation. The site is 2,066 acres/836 hectares in size. Cattle are present at the trough and windmill. A major pipeline is just adjacent with a pipeline road dissecting the pasture. Some gullying is occurring on this road, but does not impact the site. Indicators of concern that moderately deviates from established parameters are: pedestals and/or terracettes, wind-scoured blowouts and/or depostional areas, litter movement, functional/structural groups, and invasive plants. Pedestals are in flow paths and are elevating threeawn and dropseed grasses with some roots exposed. Blowouts are occasionally present especially on the windward side of the dunal formations. Litter is being displaced and is piling up against obstructions and depressional areas. Sunflower (Helianthus annus) comprises the majority of the litter. Rodents also are utilizing this litter for shelter and nesting habitat. The grasses somewhat reduced are little and sand bluestem (Andropogon hallii) in favor of threeawn. A good forb component exists however and aides in vegetative ground cover. Shinnery oak (Quercus havardii) is also reduced in favor of mesquite (Prosopis glandulosa) that is scattered and encroaching towards becoming common. Mule deer (Odocoileus hemionus) and lagomorph sign is present. These animals are utilizing the buckwheat (Eriogonum spp.) and stickleaf (Mentzelia spp.), along with other plants. The remainder of indicators assessed rated None to Slight and Slight to Moderate falling within normal ranges of variability.

Pipeline Pasture is a Roswell-Jalmar complex. This soil is on deep sand uplands in the eastern part of the survey area west of the High Plains. Slopes are 0 to 15 percent with elevations between 3,500 ft/1,060 m and 4,100 ft/1,242 m. The site is 1,031 acres/417 hectares in size. Wind-scoured blowouts are occasionally present and rate Moderate. Functional/structural groups rates Moderate due to reductions of bluestem, dropseed and grama grass components. Annual production was estimated at 400-450 lbs/ac or kg/ha far below the ESD, but approximately 1/2 of the long-term average. Invasive plants rates Moderate with mesquite scattered throughout. All other indicators rated None to Slight and Slight to Moderate falling within normal ranges of variability.

Anchor Pasture rated most indicators Slight to Moderate with attributes falling mainly within normal ranges of variability. This site is 1,127 acres/456 hectares in size on a Simona soil series well drained and shallow to very shallow formed in aeolian and alluvial sediments on uplands. The elevation is 3,400 ft/1,030 m to 3,800 ft/1,151 m on 0 to 5 percent slopes. Indicators rating Moderate are functional/structural groups and annual production. Grass plant groups comprising of black grama (Bouteloua eriopoda) and blue grama (Bouteloua gracilis) are reduced and replaced by snakeweed (Gutierrezia sarothrae), three-awn and mesquite. Annual production is 60 percent of the long-term average and well below ESD parameters. There remains an adequate

layer of mulch and litter protecting the site however. Of additional concern is invasive plants. Mesquite is common and slowly encroaching. Miscellaneous forbs were observed also along with pockets of burrograss (Scleropogon brevifolius).

Horse Pasture had no livestock present. This site is approximately 3/4 mile from the ranch headquarters on a Shallow SD-3 upland area. The acreage is 623 or 252 hectares. The soil is a Tencee consisting of well drained, very shallow to indurated caliche. It formed in gravelly and cobbly alluvium on uplands. The slope is 1-3 percent on elevations between 3,400 ft/1,030 m and 4,200 ft/1,273 m. Bareground was estimated at 60%, slightly exceeding the long-term average and doubling ESD parameters. This indicator rates Moderate. Hairy grama (Bouteloua hirsuta) and bush muhly (Muhlenbergia porteri) are missing in most areas. Three-awn and snakeweed have established. Forbs like bladderpod (Lesquerella spp.), croton (Croton spp.) and shrubs feather dalea (Dalea formosa), dogweed (Dyssodia spp.) and catclaw (Acacia spp.) are the principal plant species. Mesquite has encroached those lower depressional areas suggesting a deeper rooting depth there. Invasive plants rates Moderate to Extreme as this shrub has potential to dominate. Black and blue grama are still abundant in isolated areas. A good physical crust protects the soil while biological crusts were observed scattered throughout as well. The remainder of indicators fall within normal ranges of variability from parameters established, rating None to Slight and Slight to Moderate.

In the professional opinion of the Assessment Team, public land within Sand Camp Ranch allotment #65074, meets Upland and Biotic Standards. There are no Riparian issues present , therefore this standard was not addressed. See site notes and recommendations for additional information regarding the assessments for the ecological sites within this allotment.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Invasive Plants
- Wildlife Habitat
- Special Status Species Habitat
- Special Status Species Populations

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Recommendations: Pastures with ratings of Moderate to Extreme for invasive plants should be reviewed for possible mesquite control to curtail the encroachment. The current rotational grazing system by the allottee should continue and help those areas rebound that have been stricken with dry conditions.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65074-ANCHOR-D137			
Legal Land Desc	NESE 8 0140S 0290E Meridian 23	Acreage	1127
Ecosite	042CY002NM SHALLOW SANDY SD-3	Photo Taken	Y
Watershed	13060007100 WHITE LAKE		
Observers	ARTHUN/JAQUEZ	Observation Date	07/13/2005
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Sm	Soil Taxon Name	SIMONA
Texture Class	NM666 FSL	Soil Phase	SIMONA
Texture Modifier	NM666 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.2	NOAA Growing Season Precipitation	8.66
NOAA Avg Annual Precipitation	12.98	NOAA Avg Growing Season Precipitation	10.67
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Current estimation is 40%.					
S H	Gullies					X
Comments:						

S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Absence of some perennial grass.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Within the range. at 30% estimate.					
B	Annual Production			X		
Comments:	Current estimation is 400 lbs/ac which is 1/2 of expected and of the long-term average.					
B	Invasive Plants		X			
Comments:	Mesquite common.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat		X			
Comments:						
B	Wildlife Populations			X		
Comments:						

B	Special Status Species Habitat		X			
Comments:	Eastern edge of LPC area					
B	Special Status Species Populations			X		
Comments:	Eastern edge of LPC area					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	7	4
B	Biotic	0	3	4	4	2

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		3	4	6

Site Notes:

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65074-EAST NAIL-D133			
Legal Land Desc	SESW 17 0130S 0290E Meridian 23	Acreage	2436
Ecosite	070BY063NM DEEP SAND CP-2	Photo Taken	Y
Watershed	13060007100 WHITE LAKE		
Observers	ARTHUN/JAQUEZ	Observation Date	07/13/2005
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Fa	Soil Taxon Name	FASKIN
Texture Class	NM666 LFS	Soil Phase	FASKIN
Texture Modifier	NM666 FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.2	NOAA Growing Season Precipitation	8.66
NOAA Avg Annual Precipitation	12.98	NOAA Avg Growing Season Precipitation	10.67
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Current estimate is 30-40%.					
S H	Gullies					X
Comments:						

S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:	Occasionally present but are vegetating.					
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	50% is the current estimate.					
B	Annual Production			X		
Comments:	600 lbs/ac is the current estimate.					
B	Invasive Plants				X	
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts			X		
Comments:						
B	Wildlife Habitat			X		
Comments:						
B	Wildlife Populations			X		
Comments:						

B	Special Status Species Habitat			X		
Comments:						
B	Special Status Species Populations		X			
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	4	4
H	Hydrologic	0	0	0	7	4
B	Biotic	0	1	4	5	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	0	11
Biotic		1	4	8

Site Notes:

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65074-HORSE-D135			
Legal Land Desc	SENE 18 0140S 0290E Meridian 23	Acreage	623
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060007100 WHITE LAKE		
Observers	NAVARR0/ARTHUN	Observation Date	07/22/2005
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Te	Soil Taxon Name	TENCEE
Texture Class	NM666 GR-SL	Soil Phase	TENCEE
Texture Modifier	NM666 GRAVELLY SANDYLOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.2	NOAA Growing Season Precipitation	8.66
NOAA Avg Annual Precipitation	12.98	NOAA Avg Growing Season Precipitation	10.67
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground			X		
Comments:	Current estimate is 60%.					
S H	Gullies					X
Comments:						

S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement			X		
Comments:	Litter piling in depressions.					
S H B	Soil Surface Resistance to Erosion					X
Comments:	Plenty of O.M in the interspace soil ped sample.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Blue grama and bush muhly are reduced. More mesquite is on site than desired.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 30%, but is made up mostly of annual forbs beginning to cure out.					
B	Annual Production			X		
Comments:	Current estimate is 350 lbs/ac.					
B	Invasive Plants		X			
Comments:	Mesquite is common with potential to dominate.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	A good physical and biological crust is observed.					
B	Wildlife Habitat			X		
Comments:						
B	Wildlife Populations			X		
Comments:						

B	Special Status Species Habitat			X		
Comments:	Eastern edge of LPC area					
B	Special Status Species Populations			X		
Comments:	Eastern edge of LPC area					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	4	5
H	Hydrologic	0	0	2	5	4
B	Biotic	0	1	6	3	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	2	9
Biotic		1	6	6

Site Notes: This site is south of the headquarters on an upland area. The encroachment of mesquite poses a problem as this invasive could become dominant and over-take the pasture. An abundance of mesquite recruitment is obvious with numerous seedlings present. Due to the dry summer thus far, no new growth of perennial grass is evident. A good mulch layer exists on the soil and is stabilizing the site at present. However the mesquite will sooner or later encroach on the entire area. Black grama, dropseed and three-awn are found, but the bush muhly and blue grama have been grazed to 1-1/2" stubble heights in some places. No livestock are in this pasture at present however as they have been removed for this growing season. A forb component of croton, bladderpod and twin-leaf is plentiful, contributing to the ground cover. Dyssodia and snakeweed are also on site in lesser amounts.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65074-PIPELINE-D136			
Legal Land Desc	NENW 6 0140S 0290E Meridian 23	Acreage	1031
Ecosite	070BY063NM DEEP SAND CP-2	Photo Taken	N
Watershed	13060007100 WHITE LAKE		
Observers	ARTHUN/JAQUEZ	Observation Date	07/13/2005
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Rn	Soil Taxon Name	ROSWELL
Texture Class	NM666 FS	Soil Phase	ROSWELL-JALMAR
Texture Modifier	NM666 FINE SAND		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.2	NOAA Growing Season Precipitation	8.66
NOAA Avg Annual Precipitation	12.98	NOAA Avg Growing Season Precipitation	10.67
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Current estimate is 40%.					
S H	Gullies					X

Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:						
H	Litter Movement				X	
Comments:	Occasionally present.					
S H B	Soil Surface Resistance to Erosion			X		
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Absence of dropseed.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 35%.					
B	Annual Production			X		
Comments:	1/2 of the potential is the current estimate at 500 lbs/ac.					
B	Invasive Plants			X		
Comments:	Mesquite and snakeweed scattered.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	A weak physical crust exists.					
B	Wildlife Habitat			X		
Comments:						
B	Wildlife Populations			X		

Comments:						
B	Special Status Species Habitat			X		
Comments:						
B	Special Status Species Populations		X			
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	5	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	1	7	3	2

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	1	10
Biotic		1	7	5

Site Notes:

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65074-WEST NAIL-D134			
Legal Land Desc	NWNE 25 0130S 0280E Meridian 23	Acreage	2066
Ecosite	070BY063NM DEEP SAND CP-2	Photo Taken	Y
Watershed	13060007070 LONG		
Observers	NAVARRO/ARTHUN	Observation Date	07/27/2005
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Fr	Soil Taxon Name	FASKIN
Texture Class	NM666 LFS	Soil Phase	FASKIN-ROSWELL
Texture Modifier	NM666 SANDY CLAY LOAM,ER		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.2	NOAA Growing Season Precipitation	8.66
NOAA Avg Annual Precipitation	12.98	NOAA Avg Growing Season Precipitation	10.67
Disturbances and Animal Use:	Livestock are in this pasture at the moment. Disturbances from the pipeline are minimal. The two-track leading into this area is rarely traveled and the influences from this road are minimal as well.		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes			X		
Comments:	Some exposed roots of the threeawn are showing.					

S H	Bare Ground				X	
Comments:	Current estimate is 50%.					
S H	Gullies					X
Comments:	Except for pipeline road, no serious gullying exists.					
S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:	Occasionally present.					
H	Litter Movement			X		
Comments:	Litter of sunflower, grass and shinnery oak is piling in depressional areas and against obstructions.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	There is adequate O.M. in the interspaces.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some horizon loss exists.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Dropseed and bluestem down in favor of three-awn. Shinnery oak is reduced somewhat.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 30%.					
B	Annual Production				X	
Comments:	600-700 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants			X		
Comments:	Mesquite is scattered, with potential to become common.					
B	Reproductive Capability of Perennial Plants				X	
Comments:	The current grazed perennial grasses, except for three-awn, have not established seed head or tillers; little bluestem and sand bluestem.					
S	Physical/Chemical/Biological				X	

	Crusts					
Comments:	An ample physical crust exists.					
B	Wildlife Habitat				X	
Comments:	Sign of mule deer and lagomorph species. Forbs are in abundance especially buckwheat and stick-leaf.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat			X		
Comments:						
B	Special Status Species Populations		X			
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	5	3
H	Hydrologic	0	0	2	6	3
B	Biotic	0	1	3	7	2

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	2	9
Biotic		1	3	9

Site Notes: This site is adjacent to a major pipeline dissecting the pasture. The rebar and cage are missing. The influence from the pipeline is minimal. Three-awn is dominant throughout with the bluestems in lesser amounts. These grasses however have been utilized. The forb component in

the form of sunflower, buckwheat and stick-leaf are also on site and in abundance. Litter is mainly in the form of sunflower stalks and shinnery leaves in some areas. Some soil loss is evident as the roots of some three-awn are exposed especially in the flow paths.

Mule deer and lagomorphs are inhabiting this pasture and the ranch as a whole. Adequate cover exists in the form of sand sage, mesquite and shinnery. Livestock are in this pasture at the moment but are congregated at the water troughs at the present time.

Determination of Public Land (Rangeland) Health for 65074 SAND CAMP RANCH

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that public land within Sand Camp Ranch allotment #65074, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ J. Howard Parman — 8/8/2005

Acting Assistant Field Manager — Date